**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A method of reducing jitter in a shared-media packet-switched access network offering integrated Internet Protocol voice and data services comprising the steps of:

transmitting packets in an upstream channel in a frame, said frame comprising one or more voice regions having fixed size;

establishing at least two non-overlapping jitter windows in said one or more voice regions, each of said at least two jitter windows comprising a plurality of time slots for carrying voice packets, and said at least two jitter windows collectively covering the entire one or more voice regions; and

wherein said jitter windows are established such that packet delay variation of calls being transmitted within each of said jitter windows is maintained within an acceptable tolerance when voice packets associated with a call are shifted between time slots.

2. (Cancelled)

3. (Previously Presented) The method of claim 1 wherein said step of establishing at least two non-overlapping jitter windows in said one or more voice regions further includes:

establishing two jitter windows,

where $n$ is the number of time slots in said one or more voice regions, defining the length of each of said two non-overlapping jitter windows as $n/2$ for an even number of time slots in the voice region, or

for an odd number of time slots in said one or more voice regions, defining the length of one non-overlapping jitter window as $(n-1)/2$, and the length of the other jitter window as $(n+1)/2$.

4. (Original) The method of claim 1 wherein said shared-media packet-switched access network is connected to a distribution plant comprising one of hybrid fiber-coaxial, coaxial, or fiber-to-the-curb.

5. (Previously Presented) The method of claim 1 wherein said jitter windows are established in one voice region.

6. (Previously Presented) The method of claim 1 wherein said jitter windows are established in two voice regions separated by a data-only region.

7. (Original) The method of claim 1 wherein said step of establishing at least two non-overlapping jitter windows further includes:

establishing more than two non-overlapping jitter windows.

8. (Original) The method of claim 7 wherein the lengths of each of said more than two non-overlapping jitter windows are approximately equal.

9. (Previously Presented) A method of allocating a new upstream channel to accommodate at least one new voice connection in a shared-media packet-switched access network offering integrated Internet Protocol voice and data services, wherein a current upstream channel is carrying one or more existing voice connections, each of said existing voice connections being assigned to one or more jitter windows comprising a plurality of time slots for carrying voice packets, said method comprising the steps of:

selecting a new upstream channel with at least one idle time slot to accommodate said at least one new voice connection and said one or more existing voice connections,

assigning time slots in said new upstream channel to carry voice packets generated from said new and existing voice connections, such that voice packets from said one or more existing voice connections maintain jitter window assignments in the new upstream channel corresponding to the jitter window assignments in the current upstream channel.

10. (Previously Presented) The method of claim 9 wherein said new upstream channel is selected such that,

(1) the number of idle time slots in each jitter window in said new upstream channel being no less than the number of idle time slots allocated to a corresponding jitter window in said current upstream channel accommodating existing voice connections, and

(2) at least one of the jitter windows in said new upstream channel accommodating voice packets from said new and existing voice connections.

11. (Previously Presented) The method of claim 9 wherein said step of selecting a new upstream channel further includes selecting one of a packed with first fit, minimally packed or maximally spread upstream channel.

12. (Original) The method of claim 9 wherein said step of assigning time slots further includes assigning an idle time slot for said new voice connection by selecting one of a lowest idle time slot, a highest idle time slot or randomly selecting an idle time slot.

13. (Original) The method of claim 9 wherein said voice connections are constant-bit-rate voice connections.

14. (Cancelled).

15. (Cancelled).

16. (Cancelled).

17. (Cancelled)

18. (Currently Amended) A shared-media packet-switched access network offering integrated Internet Protocol voice and data services comprising:

a cable modem located at a customer-end of an access network;

a cable modem termination system located at a head-end of an access network;

at least one upstream channel for transmitting voice and data packets from said cable modem to said cable modem termination system; wherein

said packets are transmitted in a frame comprising at least one voice region having fixed size, wherein said at least one voice region comprises at least two non-overlapping jitter windows, and wherein each of said at least two jitter windows comprises a plurality of time slots for carrying said voice packets, and said at least two jitter windows collectively covering the entire voice region; and

wherein said jitter windows are configured such that packet delay variation of calls being transmitted within each of said jitter windows is maintained within an acceptable tolerance when voice packets associated with a call are shifted between time slots.

19. (Cancelled).

20. (Original) The network of claim 18, wherein said frame comprises two non-overlapping jitter windows in two voice regions, *n* being the number of time slots in

the voice region, defining the length of each of said two non-overlapping jitter windows as $n/2$ for an even number of time slots in the voice region, or

for an odd number of time slots in the voice region, defining the length of one non-overlapping jitter window as $(n-1)/2$, and the length of the other jitter window as $(n+1)/2$.

21. (Previously Presented) The network of claim 18, wherein said cable modem termination system assigns said at least one upstream channel to said cable modem by selecting one of a packed with first fit, minimally packed or maximally spread upstream channel.

22. (Original) The network of claim 18, wherein said cable modem termination system selects one of a lowest idle time slot, a highest idle time slot or randomly selecting an idle time slot to carry said voice packets.

23. (Original) The network of claim 18, wherein said cable modem termination system assigns a new upstream channel, with at least one idle time slot, to said cable modem when said at least one upstream channel cannot accommodate a new voice connection from said cable modem.

24. (Original) The network of claim 23, wherein said cable modem termination system selects said new upstream channel based on the following:

(1) the number of idle time slots in each jitter window in said new upstream channel being no less than the number of idle time slots allocated to a corresponding jitter window in a current channel accommodating existing voice connections, and

(2) at least one of the jitter windows in said new upstream channel can accommodate voice packets from said new and existing voice connections.

25. (Original) The network of claim 18, wherein said access network includes one of hybrid fiber coaxial, coaxial or fiber-to-the-curb.

26. (Original) The network of claim 19, wherein said at least two non-overlapping jitter windows includes more than two non-overlapping jitter windows.

27. (Original) The network of claim 26, wherein the lengths of each of said more than two non-overlapping jitter windows are approximately equal.

28. (Currently Amended) A shared-media packet-switched access network offering integrated Internet Protocol voice and data services comprising:

at least one upstream channel for transmitting voice and data packets to said cable modem termination system; wherein

said packets are transmitted in frames comprising at least one voice region having fixed size, wherein said at least one voice region comprises two non-overlapping jitter windows collectively covering said voice region, each of said two jitter windows comprising a plurality of time slots for carrying voice packets; and

wherein said jitter windows are configured such that packet delay variation of calls being transmitted within each of said jitter windows is maintained within an acceptable tolerance when voice packets associated with a call are shifted between time slots.

29 – 35 (Cancelled).